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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,108	07/03/2001	Brian Amento	2000-0425	9747

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EXAMINER	
SHAPIRO, LEONID	

ART UNIT	PAPER NUMBER
2677	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/898,108	AMENTO ET AL.	
	Examiner	Art Unit	
	Leonid Shapiro	2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1,3, 5-11, 13-14, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett (US Patent No. 6,151,208) in view of Shimozu et al. (JP 04-317638 A).

As to claim 1, Bartlett teaches a method for controlling an electronic device (See Col. 1, Lines 6-8) comprising:

receiving one or more motion signals, each signal related to one or more hand gestures (See Fig. 3, item 110, Col. 4, Lines 58-64);

determining the identity of the one or more hand gestures based on a positive correlation between the received signals and predetermined hand gesture data (See Fig. 3, items 120-121, from Col. 4, Line 65 to Col.5, Line 8); and

selectively issuing one or more commands associated with the identified hand gesture for activating one or more functions of the electronic device (See Fig. 3, item 140, Col. 5, Lines 9-12).

Bartlett does not disclose bioacoustic signals.

Shimozu et al. teaches detection of bioacoustical vibration (See Purpose).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Shimozu et al. into Bartlett system in order to improve sensitivity (See Constitution in the Shimozu et al. reference).

As to claims 3,5,8-9, Bartlett teaching transmitting command with a wireless transmitter (See Col. 8, Lines 45-50).

As to claim 10, Bartlett teaches a wrist adaptable wireless apparatus for invoking functions of a portable wireless device (See Col. 1, Lines 6-8 and Fig. 7, item 300, Col. 8, Lines 45-50) comprising:

a processor coupled to at least one motion sensor which receives sensor signal data (See Fig. 3,, items 110, 120, 121, 140, Col. 5, Lines 9-12);

receiving one or more motion signals, each signal related to one or more hand gestures (See Fig. 3, item 110, Col. 4, Lines 58-64);

a storage facility for storing a plurality of gesture patterns, wherein the processor is operative to compare sensor signal data with the plurality of gesture patterns, to detect a substantial match between the sensor signal data and one of the plurality of gesture patterns (See Fig. 3, items 120-121, from Col. 4, Line 65 to Col.5, Line 8), and to select one of a plurality of user input commands associated with the match, wherein the plurality of user input commands correspond to a plurality of functions of the portable wireless device; and a wireless transmitter coupled to said processor and operative to wirelessly transmit the user input command to the portable wireless device (See Fig. 3, item140, Col.5, Lines 9-12 and Col. 8, Lines 45-50).

Bartlett does not disclose piezo-electric contact microphone.

Shimozu et al. teaches piezo-electric contact microphone (See Constitution).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Shimozu et al. into Bartlett system in order to improve sensitivity (See Constitution in the Shimozu et al. reference).

As to claim 11, Bartlett inherently as hand held portable computing device mouted on dorsal will have a portable power supply (See Fig. 7, item 300).

As to claim 13, Bartlett teaches configuration of a wristwatch (See Col. 8, Lines 45-50).

As to claim 14, Bartlett teaches wireless control system (See Col. 1, Lines 6-8 and Fig. 7, item 300, Col. 8, Lines 45-50) comprising:

a digital processor coupled to sensor component (See Fig. 3,, items 110, 120, 121, 140, Col. 5, Lines 9-12);

receiving one or more motion signals, each signal related to one or more hand gestures (See Fig. 3, item 110, Col. 4, Lines 58-64);

a storage component for storing a plurality of gesture patterns data indicative of the plurality of gesture, each gesture corresponding to unique one of a plurality of electronic device commands (See Fig. 3, items 120-121, from Col. 4, Line 65 to Col.5, Line 8), and to select one of a plurality of user input commands associated with the match, wherein the plurality of user input commands correspond to a plurality of functions of the portable wireless device; and

a wireless transmitter and antenna coupled to said processor and operative to transmit the electronic device command (See Fig. 3, item140, Col.5, Lines 9-12 and Col. 8, Lines 45-50).

Bartlett does not disclose a bioacoustic sensor component.

Shimozu et al. teaches a bioacoustic sensor component (See Purpose).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Shimozu et al. into Bartlett system in order to improve sensitivity (See Constitution in the Shimozu et al. reference).

As to claim 15, Bartlett teaches the transmitter is embedded in a ring structure (See Col. 8, Lines 40-45).

As to claim 17, Bartlett teaches the system is operative for receiving information from plurality of external information sources (See Col. 8, Lines 40-45).

As to claim 18, Bartlett teaches the processor, storage component and wireless transmitter and antenna are remotely located away from sensor component (see Col. 8, Lines 40-45).

As to claim 19, Shimozu et al. teaches a band in part of piezo-electric material (See Constitution).

As to claim 20, Bartlett teaches a method for controlling an electronic device (See Col. 1, Lines 6-8) comprising:

training a user in one or more hand gestures so that the one or more hand gestures correspondent to one or more device commands (See Col. 8, Lines 45-50);

receiving one or more motion signals, each signal related to one or more hand gestures (See Fig. 3, item 110, Col. 4, Lines 58-64);

determining the identity of the one or more hand gestures based on a positive correlation between the received signals and predetermined hand gesture data (See Fig. 3, items 120-121, from Col. 4, Line 65 to Col.5, Line 8); and

transmitting one or more commands associated with the identified hand gesture for activating one or more functions of the electronic device (See Fig. 3, item 140, Col. 5, Lines 9-12).

Bartlett does not disclose bioacoustic signals.

Shimozu et al. teaches detection of bioacoustical vibration (See Purpose).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Shimozu et al. into Bartlett system in order to improve sensitivity (See Constitution in the Shimozu et al. reference).

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett and Shimozu et al. as applied to claim 1 above, and further in view of Gerrissen et al. (US Patent No. 5,319,747).

Bartlett and Shimozu et al. do not disclose a first gesture, which reflects contact between a thumb and an index finger of a human hand.

Gerrissen et al. teaches a first gesture, which reflects contact between a thumb and an index finger of a human hand (See Fig. 3D, Col. 6, Lines 5-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Gerrissen et al. into Shimozu et al. and Bartlett system in order have visual feedback (See Col. 1, Lines 44-48 the Gerrissen et al. reference).

3. Claims 4,12 arerejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett and Shimozu et al. as applied to claims 1, 10 above, and further in view of Bank (Pub. No.: US 2003/0048915 A1).

As to claim 4, Bartlett and Shimozu et al. do not disclose amplifying the bone conduction sound based signal, digitizing the bone-conducted sound based signal.

Bank teaches an optional amplifier (See Fig. 2B, items 108,110, Col. 6, paragraphs 0055-0056).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Bank into Shimozu et al. and Bartlett system to use amplifier and digitize the amplified signal in order to use conduction interface for communication device (paragraph 0007 in Bank reference).

As to claim 12, Bartlett and Shimozu et al. do not disclose sensing bone-conducted sound of a human hand.

Bank teaches sensing bone-conducted sound of a human mastoid bone (See paragraphs 0007).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Bank into Shimozu et al. and Bartlett system to use

sensing bone-conducted sound of a human hand in order to use conduction interface for communication device (paragraph 0007 in Bank reference).

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartlett and Shimozu et al. as applied to claim 14 above, and further in view of Sears et al. (US Patent No. 6,115,482).

Bartlett and Shimozu et al. do not disclose an audio component for providing user feedback when a gesture is sensed.

Sears et al. teaches an audio component for providing user feedback when a gesture is sensed (See Fig. 2, items 65,69, Col. 6, Lines 21-33).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Sears et al. into Shimozu et al. and Bartlett system in order impove functionality to navigate text (See Col. 1, Lines 23-28 the Sears et al. reference).

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LS
01.07.06

AMR A. AWAD
PRIMARY EXAMINER